July 10, 2012

Congressmen and Congresswomen,

Good morning, my name is Don Althoff; I'm the CEO for Flex Fuel US. Thank you for the opportunity to speak today.

I appreciate the opportunity to provide our input to the Open Fuels Standard legislation because I believe we bring unique insights to the discussion. We have deep experience in all of the key elements in the alternate fuel supply chain including automotive design and construction as well as the manufacture, distribution and resell of motor fuels. Based on our experience in the alternative fuel marketplace, having the ability to support our customers across the entire supply chain is required to achieve a sustainable economic model. Vehicle technology and fuel supply need to work together. Therefore we have developed an in-depth understanding of the entire supply chain for ethanol and other alternate fuels. *We believe the Open Standard Fuel legislation is good for our nation because it begins to build economies of scale in the supply chain. It offers real choice to consumers and results in markets that will drive down fuel costs while improving vehicle performance.*

Before I get into the details around why we support the legislation and provide some suggestion on how we might make it even more successful, please allow me to share a little bit about my company, Flex Fuel US. Most of you are probably not aware that an EPA certified Retrofit Solution is now available. Flex Fuel US LLC was formed in 2006 and has developed the first Federal EPA certified product which legally converts existing cars and light duty trucks to run on any combination of gasoline and ethanol up to E85. The conversion system is low cost and easy to install. Factory warrantees are maintained. Successful pilots and the most demanding DOE and EPA studies have proven the technology works. While we are a new company, hundreds of converted vehicles driven millions of miles are already on the road delivering trouble-free, exceptional performance.

When we started the company, we felt that any successful alternate fuel approach would require the ability to have a low cost retrofit in the supply chain. With the average vehicle life lasting longer than 15 years, it would take too long to reach economies of scale if our national transition relied only on the sale of new vehicles. So *retrofitting is a bridge solution* that helps you achieve your alternative fuel goals even faster. *Existing retrofit systems work cost effectively and should be a serious consideration in any transition of national scale.*

## Support for the Open Fuel Standard Legislation

*We support the Open Fuels Standard Act because the new legislation would have a significant impact on what I believe is the most critical area in building a sustainable, economical alternate fuel marketplace; creating economies of scale.* For any alternate fuel approach to be economically competitive against gasoline, a large percentage of the vehicles on the road must be alternative fuel and the fuel supply chain must be large, efficient and competitive. In most alternate fuel policy debates, the old chicken or egg dilemma surfaces; *if the vehicles were available, the retailers would add the fuel.* Or if the retailers would add the fuel, the car companies will build more alternate fuel vehicles. This has been true for all of the alternate fuel technologies e.g., electric and compressed natural gas vehicles. This legislation resolves this dilemma. When consumers have vehicles that can use the fuel and the fuels are available, consumers have choice in a competitive marketplace. For ethanol, the infrastructure and distribution systems are already in place.

We also support the Standard because *the legislation can create scale in the marketplace at a very low cost versus other alternative fuel technology*. The incremental cost to produce alternate fuel vehicles is very low. Several credible studies conclude the incremental costs are less than $100 for a new vehicle. Retrofitting existing vehicles with EPA certified systems could also be accomplished at very low costs. *With scale, retrofit can be done for under $500/vehicle on tens of millions of vehicles.*

We also see another significant benefit from this legislation; consumers will see lower *fuel prices*. The legislation will help increase the amount of ethanol in our fuel supply chain resulting in lower fuel prices for all consumers. This conclusion is based on a National Renewable Energy Laboratory and McKinsey 2008 study on the impact of ethanol on gasoline pricing. The study's major finding is that ethanol helps to reduce U.S. gasoline prices today and could potentially play an even larger role in the future by helping to reduce crude oil prices. The report says that ethanol blending in the U.S. is keeping U.S. retail gasoline prices about 14 cents per gallon lower than they would be with no ethanol. This takes into account the lower mileage impact of ethanol.

As the numbers of FFV's on the road grow, *we will also see more competition to build better FFV's and create more aggressive retail pricing.* These are subtle but important impacts. Today, most FFV's are built without ethanol sensors to reduce costs but this was done at the expense of performance. When large number of customers begin to use higher blends of ethanol and demand increases, the car companies will have an incentive to produce better performing vehicles.

This legislation also helps to level the playing field with other alternative fuel options. With the elimination of VEETC, ethanol no longer receives any incentives to create new demand. All of the other key alternate fuel technologies receive significant tax incentives with the exception of FFV's.

I would like to emphasize that the economics work today for ethanol blends. The payback on the investment to build or convert FFV is as short as one year in some markets. This might surprise some people but the facts are clear:

- The average Chicago spot price differential for E85 averaged 22% lower vs. gasoline for the last 4 years. It's been 20% lower in 2012 after VEETC was dropped.
- A properly designed FFV will have a fuel economy loss of 15% to 20%. A major test study with the Chicago Police Department showed an 18% loss with our conversion technology. These results were reviewed with DOE and the EPA to provide assurance that they were credible.

**Additional Legislative Points for Consideration**

There are a myriad of reasons why we support this legislation. Most of the supply chain is in place and ready to be retrofitted to accommodate increased demand. But we also believe there are some areas of the legislation that should be enhanced or new policies created. These are simple but pragmatic tactics that would enable this effort to achieve its goals and accelerate our quest for foreign oil independence and clean air.

First I believe that retrofitting existing vehicles to be Flex Fuel is critical for the overall program and should be incentivized. With the average life of a vehicle on the road today of 15 years, relying only on new vehicles to build scale in the market would take too long. Fortunately there is a legal, EPA approved retrofit option that can be deployed quickly. The technology can also be enhanced to work with methanol.

Retrofitting also has the advantage of targeting where you build out the Flex Fuel fleets to build scale. Unfortunately, new vehicle demand tends to drive today's allocation process with markets like California having the largest number of FFV but the lowest number of E85 retail stations. The retrofit option has the flexibility to build scale in targeted areas. This allows the marketplace to optimize investments where there is abundant fuel availability and strong price differentials. This is materially different than the way the market allocates FFV today.

So placing the vehicles where the fuel is available makes the economics work. Government incentives can encourage expansion of the FFV fleet in targeted areas. This can be accomplished by affording FFVs the same benefits that CNG and Propane vehicles receive today.

I also believe that there needs to be legislation that incentivizes marketing and promotion of Flex Fuel vehicles and fuel. Today the ethanol based alternative fuel program lacks a strong and positive consumer appeal. The lack of acceptance stems from incorrect information in the market today about the quality of the fuel, the performance of a properly designed FFV and the fuel economy data.

A significant educational/marketing program is needed to correct this perception and underpin the proposed legislation actions. In our view, the best way to do this effectively is to incentivize the automobile manufacturers to promote flex fuel vehicles and the fuel. There are a number of options we would suggest as possible approaches in creating incentives to the auto industry to produce high quality vehicles and promote their benefits including:

- Modify or eliminate EPA certification costs associated with certifying the FFV capabilities. We understand that the EPA costs represent about 80% of the total cost difference to produce a FFV.
- Offer tax credits to the owners of FFVs when they demonstrate they purchase at least 50% of their fuel as E85 or a higher ethanol blend.

We do not think that the current CAFÉ credit program should be continued because it hasn't delivered the results it was intended to provide.

In summary, we support the Open Fuel Standard. This legislation is a game changer in our goal of foreign oil independence. We believe it will have a significant impact on creating a sustainable alternate fuel program that can compete economically with gasoline-powered vehicles. And we believe it's a credible first step to achieve real economies of scale. But we also believe that additional steps should be taken including incentives for FFV retrofits and creating incentives to market and promote FFV and fuel.

Thank you very much for the chance to speak today and I would be happy to answer any questions from the committee.

Don Althoff
CEO Flex Fuel US LLC

Appendix attachments

1. Flex Fuel US Overview
2. Oak Ridge National Laboratory - Fuel Economy and Emissions of a Vehicle Equipped with an Aftermarket Flexible-Fuel Conversion Kit
3. National Renewable Energy Laboratory/McKinsey & Co. – Impact of ethanol blending on US Gasoline prices